

ASARINA PLANT NAMED 'SUN-ASARO'

## BOTANICAL/COMMERCIAL CLASSIFICATION

Asarina lophospermum X Asarina erubescens/Asarina Plant

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## VARIETAL DENOMINATION

cv. 'Sun-Asaro'

## BACKGROUND OF THE VARIETY

10       The genus *Asarina (Lophospermum)*, belonging to the *Scrophulariaceae*, plant is a herbaceous perennial, but is annual in a cold climate, and is frost hardy to frost tender. There are ten species in the genus *Asarina (Lophospermum)* and they are native from Mexico to  
15       Guatemala. The genus *Asarina (Lophospermum)* is similar to the genus *Antirrhinifnum*, but the differences are its flexible, scandent or clambering stems and its zygomorphic capsule. Corolla hues are various, such as red, violet, or dark purple distally, or whitish or light  
20       violet proximally. The genus *Asarina* plant grows in full light and in well-drained soil flowers in summer and the flowering period is long.

25       The *Asarina erubescens (Lophospermum erubescens)* plant is very vigorous plant, having long stems and internodes, and large flowers of which the edge is excurved. It has few flowers, because it grows very quickly and blooms only at the top of the stem. The *Asarina lophospermum (Lophospermum scandens)* plant has short stems and internodes, medium sized flowers of which the edge is incurved. Accordingly, this invention is aimed at obtaining a new variety having strong purplish-red colored, large excurved petals, together with a creeping growth habit, medium length internode, many branches, and a high resistance to heat, pests and diseases.  
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BREEDING PROCESS

First of all, self-pollination of 'Sun-Asaware' (non-patented in the United States), which was bred by crossing between *Asarina lophospermum* (*Lophospermum scandens*) as female parent and *Asarina erubescens* (*Lophospermum erubescens*) as male parent, was conducted, at the Omi R&D Center of Suntory Flowers Ltd., in October 1998. In November, some seeds were obtained from the crossing. The seeds were sown and grown there in March 1999. In August 1999, 5 seedlings were selected in view of having the strong purplish-red, excurved and non-overlapped petal, and were propagated by cutting. Those seedlings were used in a trial by flower potting and bedding from May 2000, at the Omi R&D Center of SUNTORY FLOWERS Ltd. Finally one variety was selected in view of being no shorter than 'Sun-Asaware' and taller than 'Red Dragon'. The botanical characteristics of that plant were then examined, using similar variety 'Red Dragon' for comparison. As a result, it was concluded that this *Asarina* plant is distinguishable from all other varieties, whose existence is known to us, and is uniform and stable in its characteristics. The new variety of *Asarina* plant was named 'Sun-Asaro'.

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This *Asarina* genus plant 'Sun-Asaro' is presently maintained at the Omi R&D Center of Suntory Flowers Ltd., residing at 863-1, Aza-Iketani, Omori-cho, Yokaichi-shi, Shiga-ken, Japan.

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This new and distinct variety of *Asarina* plant, 'Sun-Asaro', was asexually reproduced by tissue culture at the aforementioned the Omi R&D Center of Suntory Flowers Ltd., and the homogeneity and stability thereof were confirmed.

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DESCRIPTION

In the following description, the color-coding is in accordance with the Horticultural Color Chart of The Royal Horticultural Society, London, England (R.H.S. Color Chart).

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The botanical characteristics of the parent plant 'Sun-Asaware' (*Asarina lophospermum* (*Lophospermum scandens*) x *Asarina erubescens* (*Lophospermum erubescens*)) used in the breeding of 'Sun-Asaro' as follows.

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Plant;

Growth habit - Creeping

Height - Approximately 100 cm

15 Stem;

Thickness - Approximately 2.9 mm

Color - Strong yellow green (R.H.S.143A)

Pubescence - Dense

Branching - Many

Internode length - Approximately 5.5 cm

Leaf;

20 Arrangement - Arternate

Shape - Triangular

Margin - Dentate

Length - Approximately 7.8 cm

Width - Approximately 9 cm

25 Color of upper side - Moderate olive-green (R.H.S.146A)

Color of under side - Moderate yellow-green  
(R.H.S.146B)

Thickness - Approximately 0.3 mm

Length of petiole - Approximately 5.5 cm

30 Attachment angle to stem - Upward

Flower;

Shape - Normal-type

Gap between upper-labiate petal and lower-labiate petal

- Broad

35 Diameter - Approximately 3.5 cm

Width of corolla - Approximately 4.8 cm

Length of tube - Approximately 7.2 cm

Width of corolla tube - Approximately 2.2 cm  
Color of upper-labiate petal - Strong purplish-red  
(R.H.S.70A)  
Color of lower-labiate petal - Strong purplish-red  
5 (R.H.S.70A)  
Outside color of corolla tube - Strong purplish-red  
(R.H.S.70A)  
Type of upper-labiate petal - Medium  
Shape of lower-labiate petal - Overlapped  
10 Type of lower-labiate petal - Excurred  
Petal number - 5  
Pubescence of corolla tube - Absent  
Shape of pistil - Hook-shaped  
Color of pistil - Light yellow-green (R.H.S. 2D)  
15 Stamen number - 4  
Color of anther - Light yellow-green (R.H.S.145C)  
Calix length - Approximately 3.2 cm  
Color of calyx - Brilliant yellow-green (R.H.S.149A)  
Peduncle length - Approximately 3.8 cm  
20 Peduncle thickness - Approximately 1.2 mm  
Color of peduncle - Vivid yellow-green (R.H.S.144A)  
Flowering time - Long  
Resistance;  
Coldness - Medium  
25 Heat - Strong  
Diseases - Strong  
Pests - Strong  
  
The botanical characteristics of the similar variety  
30 *Asarina erubescens* (*Lophospermum erubescens*) used for  
examination as a comparison are as follows.  
Plant;  
Growth habit - Climber  
Height - more than 100 cm  
35 Stem;  
Thickness - Approximately 3.5 mm  
Color - Moderate yellow-green (R.H.S. 146B)

Pubescence - Dense  
Branching - Many  
Internode length - Approximately 7.5 cm

Leaf;

5      Arrangement - Arternate  
         Shape - Triangular  
         Margin - Crenate  
         Length - Approximately 8 cm  
         Width - Approximately 8.5 cm

10     Color of upper side - Moderate olive-green (R.H.S.  
146A)  
         Color of under side - Moderate yellow-green (R.H.S.  
147B)  
         Thickness - Approximately 0.3 mm

15     Length of petiole - Approximately 5.2 cm  
         Attachment angle to stem - Upward

Flower;

20     Shape - Normal-type  
         Gap between upper-labiate petal and lower-labiate petal  
- Broad  
         Diameter - Approximately 4.4 cm  
         Width of corolla - Approximately 4.7 cm  
         Length of tube - Approximately 7.5 cm  
         Width of corolla tube - Approximately 3.6 cm

25     Color of upper-labiate petal - Vivid purplish-red  
(R.H.S. 63B)  
         Color of lower-labiate petal - Vivid purplish-red  
(R.H.S. 63B)  
         Outside color of corolla tube - Moderate purplish-red

30     (R.H.S. 64C)  
         Type of upper-labiate petal - Medium  
         Shape of lower-labiate petal - Non-overlapped  
         Type of lower-labiate petal - Excurred  
         Petal number - 5

35     Pubescence of corolla tube - Present  
         Shape of pistil - Hook-shaped  
         Color of pistil - Light yellow-green (R.H.S. 2D)

Stamen number - 4  
Color of anther - Light yellow-green (R.H.S.145C)  
Calix length - Approximately 2.2 cm  
Color of calyx - Vivid yellow-green (R.H.S.144A)

5 Peduncle length - Approximately 4.8 cm  
Peduncle thickness - Approximately 1.5 mm  
Color of peduncle - Brilliant yellow-green (R.H.S.  
149A)  
Flowering period - Long

10 Resistance;  
Coldness - Medium  
Heat - Strong  
Diseases - Strong  
Pests - Strong

15 The botanical characteristics of the similar variety  
'Red Dragon' used for examination as a comparison are as  
follows.

Plant;  
Growth habit - Creeping  
Height - Approximately 15 cm

20 Stem;  
Thickness - Approximately 2.7 mm  
Color - Moderate yellow-green (R.H.S. 137C)

25 Pubescence - Normal  
Branching - Many  
Internode length - Approximately 2.8 cm

Leaf;  
Arrangement - Arternate

30 Shape - Triangular  
Margin - Dentate  
Length - Approximately 6.8 cm  
Width - Approximately 4.5 cm  
Color of upper side - Grayish-olive-green (R.H.S. 147A)

35 Color of under side-Moderate yellow-green (R.H.S. 147B)  
Thickness - Approximately 0.15 mm  
Length of petiole - Approximately 4 cm

Attachment angle to stem - Upward  
Flower;  
    Shape - Normal-type  
    Gap between upper-labiate petal and lower-labiate petal  
5    - Broad  
        Diameter - Approximately 1.8 cm  
        Width of corolla - Approximately 2.2 cm  
        Length of tube - Approximately 6.6 cm  
        Width of corolla tube - Approximately 1.7 cm  
10   Color of upper-labiate petal - Moderate purplish-red  
      (R.H.S. 58A)  
      Color of lower-labiate petal - Moderate purplish-red  
      (R.H.S. 58A)  
      Outside color of corolla tube - Moderate purplish-red  
15   (R.H.S. 58A)  
      Type of upper-labiate petal - Medium  
      Shape of lower-labiate petal - Overlapped  
      Type of lower-labiate petal - Incurved  
      Petal number - 5  
20   Pubescence of corolla tube - Absent  
      Shape of pistil - Hook-shaped  
      Color of pistil - Light yellow-green (R.H.S. 2D)  
      Stamen number - 4  
      Color of anther - Light yellow-green (R.H.S. 145C)  
25   Calix length - Approximately 3.1 cm  
      Color of calyx - Brilliant yellow-green (R.H.S. 149A)  
      Peduncle length - Approximately 4.2 cm  
      Peduncle thickness - Approximately 1.3 mm  
      Color of peduncle - Strong yellow-green (R.H.S. 144B)  
30   Flowering period - Long  
Resistance;  
    Coldness - Medium  
    Heat - Strong  
    Diseases - Strong  
35   Pests - Strong

SUMMARY OF THE VARIETY

5           The new Asarina plant has a creeping growth habit and has short internode stems. The stem color is moderate yellow-green. The flower is a Penstemon-type and large. Both of the petal and the outside of corolla tube colors are strong purplish-red. The plant has a high resistance to heat, pests and diseases.

#### BRIEF DESCRIPTION OF THE DRAWING

10           FIG.1 is a photograph giving a partial view of the new variety of Asarina plant 'Sun-Asaro' planted in a pot.

15           FIG.2 is a photograph of flowers of the new variety of Asarina plant 'Sun-Asaro'.

#### 15           DESCRIPTION OF THE VARIETY

20           The botanical characteristics of this new and distinct variety of Asarina plant 'Sun-Asaro' are as follows.

##### Plant;

25           Growth habit - Creeping

Height - Approximately 70 cm

##### Stem;

Thickness - Approximately 3.2 mm

Color - Moderate yellow-green (R.H.S. 146D)

Pubescence - Dense

Branching - Many

Internode length - Approximately 2.8 cm

##### 30           Leaf;

Arrangement - Arternate

Shape - Triangular

Margin - Dentate

Length - Approximately 7.8 cm

35           Width - Approximately 9 cm

Color of upper side - Strong yellow-green (R.H.S. 144A)

Color of under side - Moderate yellow-green (R.H.S.

143C)

Thickness - Approximately 0.2 mm

Length of petiole - Approximately 3.5 cm

Attachment angle to stem - Upward

5 Flower;

Shape - Penstemon-type

Gap between upper-labiate petal and lower-labiate petal

- Broad

Diameter - Approximately 4.4 cm

10 Width of corolla - Approximately 4.7 cm

Length of tube - Approximately 5.3 cm

Width of corolla tube - Approximately 1.8 cm

Color of upper-labiate petal - Strong purplish-red  
(R.H.S. 63A)

15 Color of lower-labiate petal - Strong purplish-red  
(R.H.S. 63A)

Outside color of corolla tube - Strong purplish-red  
(R.H.S. 63A)

Type of upper-labiate petal - Medium

20 Shape of lower-labiate petal - Non-overlapped

Type of lower-labiate petal - Excurred

Petal number - 5

Pubescence of corolla tube - Present

Shape of pistil - Hook-shaped

25 Color of pistil - Light yellow-green (R.H.S. 2D)

Stamen number - 4

Color of anther - Light yellow-green (R.H.S. 145C)

Calix length - Approximately 3.2 cm

Color of calyx - Brilliant yellow-green (R.H.S. 145B)

30 Peduncle length - Approximately 3.1 cm

Peduncle thickness - Approximately 1.1 mm

Color of peduncle - Moderate yellow-green (R.H.S. 146C)

Flowering period - Long

Resistance;

35 Coldness - Medium

Heat - Strong

Diseases - Strong

Pests - Strong

This new variety of *Asarina* plant 'Sun-Asaro' is most suitable for hanging baskets.

5 COMPARISON WITH SIMILAR VARIETY

The new variety of *Asarina* plant 'Sun-Asaro' is different from a parent variety, *Asarina* 'Sun-Asaware' in the following points,

- 10 1. The plant height of 'Sun-Asaro' is much lower than that of 'Sun-Asaware'.
2. The internode length of 'Sun-Asaro' is much shorter than that of 'Sun-Asaware'.
- 15 3. The flower shape of 'Sun-Asaro' is Penstemon-type, while that of 'Sun-Asaware' is normal-type.
4. The color of whole petal and corolla tube of 'Sun-Asaro' is strong purplish-red (R.H.S.63A), while the whole petal and corolla tube color of 'Sun-Asaware' is strong purplish-red (R.H.S.70A).
- 20 5. The lower-labiate petal shape of 'Sun-Asaro' is non-overlapped while that of 'Sun-Asaware' is overlapped.
6. The pubescence of corolla tube of 'Sun-Asaro' is present while that of 'Sun-Asaware' is absent

25 The new variety of *Asarina* plant 'Sun-Asaro' is different from a similar variety, 'Red Dragon' in the following points,

1. The plant height of 'Sun-Asaro' is much higher than that of 'Red Dragon'.
- 30 2. The flower of 'Sun-Asaro' is larger than that of 'Red Dragon'.
3. The color of whole petal and corolla tube of 'Sun-Asaro' is strong purplish-red (R.H.S.63A) while that of 'Red Dragon' is moderate purplish-red (R.H.S.58A).
- 35 4. The lower-labiate petal type of 'Sun-Asaro' is excurved while that of 'Red Dragon' is incurved.